EUGENICS AND POVERTY

By RICHARD M. TITMUSS and FRANÇOIS LAFITTE

EUGENICS is the use of scientific means to attain an ethical end. The end is a higher level of mental and physical health, an increase in the biological efficiency of human beings; the means are such measures as tend to improve the inborn qualities of future generations, to raise the proportion of those who are "well born." Eugenists seek a higher level of health—i.e. of "wholeness"—as an end in itself, because the human personality is an end in itself, and because they wish to see human beings in the mass become more completely human. They wish to bring about an increased inborn *capacity* for "wholeness," and also a fuller *realization* of that capacity by creating conditions in which inborn qualities can attain full expression. The Nazis, on the other hand, are interested in human health and biological efficiency only to the extent that they further the immoral purposes of a tyranny whose highest aim is total warfare. Eugenics is only one contribution to the production of human beings who are mentally and physically "whole," capable of living full harmonious lives and creating a healthy social order. The adult human being is the product of an endlessly complex system of interactions between "nature" and "nurture." Inborn qualities by themselves do not suffice to produce "whole" human beings. The "well born" individual requires a healthy environment (nutrition, activity, economic and social opportunities, psychological and moral atmosphere) if he is to grow to that full mental and physical stature of a "whole" adult which is potentially his. Few eugenists would hold that the unmistakable increase in the average height and weight of British school children over the past generation is evidence of genetic improvement. It *is* evidence of improved environment, which may or may not have masked an actual deterioration in hereditary endowment. We do not know. So entangled are the factors of "nature" and "nurture," of which each human being is the end-product, so scanty still is our knowledge of human genetics, that no eugenist can afford to neglect the study of environmental factors—especially of economic and social conditions. As long as there remain vast inequalities of financial and social opportunity it will not be possible to determine which socially important differences* between human beings can safely be attributed to genetic endowment rather than to environmental circumstances. The Eugenic Charter must therefore of necessity comprise the twin aims of providing the healthiest mental and physical endowment for future generations, and of insisting on the healthiest environment for all so to ensure that potential health can be turned into actual health. In reviewing Seebohm Rowntree's new social survey of York,† concentration on the forces of "nurture" does not therefore imply that we are ignoring the importance of transmissible biological factors.

It is the study of Rowntree's work which has impelled us to re-state our conception of eugenics as a preliminary to taking stock of Britain's position after forty years. If the world is to be rescued from its present misery, our conception of society after the war and our ideas of the form which reconstruction should assume must take account of deficiencies in our pre-war society, and, what is of equal importance, the pace at which social change takes place. *Poverty and Progress* has much to tell us of the effects of pre-war environmental conditions on the mass of the population and it gains in value from the fact that it repeats a survey made in 1899‡ and thus renders possible some measurement of forty years of change.

* Subnormal mental ability, epilepsy, invalidism, poor physique are socially important. Rare hereditary diseases are not very important. Jewish or Negro "blood" is important only to Nazis and other race fanatics.

† Rowntree, B. Seebohm. *Poverty and Progress. A Second Social Survey of York.* Longmans, Green & Co. 1941. 15s.

‡ Rowntree, B. Seebohm. *Poverty, A study in Town Life.* 1901.

The city of York is Rowntree's laboratory. It is fairly representative of English urban life. The changes that have taken place in York between the two surveys correspond fairly well to the changes that have occurred during the same period in town life in general; and England is a highly urbanized country. The growth in the population of York by 18 per cent (from 75,800 in 1899 to 89,700 in 1936) has been somewhat less than that for the country as a whole (27 per cent) but in other respects the correspondence is very close. Thus the birth rate in York has been halved in thirty-seven years from 30 to 15 per 1,000 population, whilst the rate for the whole of the country fell from 29 to 15. Similarly, the proportion of children in the population fell by 30 per cent in York as against a national decline of 32 per cent; and, just as the average age of the population of England and Wales has been rising, so it has in York. Accompanying this continuous fall in fertility and progressive ageing of the population there has occurred a dramatic fall in mortality.

This is the background to the 1936 study of the social and economic environment of 16,362 families (55,206 individuals) whose chief breadwinner earned up to £250 a year. The book ranges over many departments and activities of daily life, but it is not correct to describe it—as the publisher does—as " a complete picture of working-class life." The vitally important aspect of *work* itself and all its associated problems is not dealt with. The dominant *Motiv* of the whole work is, as the title implies, the standard of living of the working classes, who are defined as those earning not more than £250 a year and who comprise 57 per cent of York's population. As the standard of living, which, as we have said, is controllable by man, largely conditions the environment, it is as well for us to see exactly what the standard of measurement used by Rowntree implies, particularly as so much attention has been given to his main finding that 31 per cent of the working-class population is below " the poverty line." In investigating Rowntree's standard we have drawn liberally on an examination of the York survey made by P.E.P., which should be referred to by those who require more detailed information.*

The amount of work involved in the survey is such that it seems a pity that Rowntree selected as his yardstick a theoretical standard and practically ignored actual dietary and spending habits. It would have been preferable to have ascertained how family income actually was expended and to have built up a poverty standard from actual spending habits (assuming reasonable economies necessary for life at a poverty level) instead of using rigid theoretical minima. To obtain " the necessaries of a healthy life " Rowntree takes as his standard, for an urban family of man, wife and three dependent children, the sum of 43s. 6d. per week after excluding rent and rates. This figure is made up of food 20s. 6d., clothing 8s., fuel and light 4s. 4d., household sundries 1s. 8d., and personal sundries 9s. Unfortunately the author does not tell us how these items are calculated but refers us to his earlier book, *The Human Needs of Labour*.† To appreciate fully what these items mean it is essential to consult this book and to refer also to the 1933 Report of the British Medical Association. Rowntree describes the B.M.A. diet as a minimum; but although he constantly refers to his diet as the B.M.A. standard it is actually lower, for, amongst other things, he replaces fresh milk by condensed milk and stipulates that all bread be home baked. It should be recalled that the B.M.A. diet, whilst not termed a minimum one, was certainly not an optimum standard and it was lower than the " standard ration " of Army troops at home stations (1933) and considerably below the standard ration supplied to Territorial soldiers during their Army training season, both of which diets are usually supplemented from various sources. Examined from these and other angles therefore Rowntree's diet, which is below that suggested by the B.M.A., is indefensible. In other respects Rowntree's diet is inadequate

* *Planning*, No. 179. Published by P.E.P. Oct. 1941.

† *The Human Needs of Labour*. Longmans, Green & Co. Revised edition. 1937.

and out-of-date because he ignores the fact that the B.M.A. experts subsequently found that the diet in question was lower than could be justified; and because he applies the Cathcart-Murray scale of "man-values," co-efficients which express the *caloric* needs of children and adults of different ages as percentages of the requirements of a "normal" man of "average" stature and physique performing "moderate" work. This scale is now regarded as too low for the caloric needs of children aged 5-18; and, as the Chief Medical Officer of the Ministry of Health pointed out in 1937,* it cannot be applied to the protein, mineral and vitamin requirements of women and children. "Recent work has shown, for example, that a child of 12-14 years requires about 90 gm. of protein per day for adequate nutrition, whereas the needs of the adult male are in the region of 70 gm. per day. The Cathcart and Murray scale on the other hand places a child of this age as 0·9 of a 'man,' whereas on the basis of protein requirements he would be regarded as 1·3 of a 'man.'" Thus Rowntree's co-efficients for children are low; and it is not surprising that, in his analysis of a few family budgets, his four groups (whose weekly incomes after paying rent were 24s. 8d., 33s. 9d., 57s. 9d. and 69s. 7d.) were all deficient in calorie intake: all deficient in total protein and first-class protein; all deficient in calcium and iron.

Apart therefore from the facts that no allowance at all is made for meals taken at restaurants or canteens, and that, as the author stresses, "the housewife must possess an unusual amount of knowledge of the nutritive value of different foodstuffs," it can be appreciated that Rowntree's food diets are extremely vulnerable to criticism on nutritional grounds and also because they are theoretical measurements. It is not possible therefore to accept the statement that a family of five could be adequately fed on 20s. 6d. weekly at 1936 prices. (We may mention that the cost of feeding five mentally defective children in State institutions amounted, at 1936 prices, to over 30s. per week.)

* Annual Report for 1937, p. 129.

So far as food is concerned we may thus conclude that Rowntree's standard of 20s. 6d. is inadequate in the light of up-to-date nutritional requirements. His other items are also open to criticism for not only do they allow no margin for contingencies but no provision is made for furniture, bedding and other household equipment made necessary by the normal wear and tear of family life. For young married couples Rowntree states on page 31 that he allows for equipment, hire-purchase obligations, etc., a sum of 5s. per week where there is one child and 3s. for a couple with two children. On page 456, however, it is stated that 5s. is allowed for a couple with no children and 3s. for a couple with one child. The sum of 9s. on personal sundries may appear high but when itemized* the allowance is far from extravagant. In particular, the sum of 3s. 4d. on "all else" has to cover, in addition to the items mentioned by Rowntree, such recognized necessities as the dentist and optician, shaving materials, toothbrushes, toilet paper, haircuts, drugs and all the innumerable small items of household expenditure. As eugenists we might well add birth control, a subject which curiously is completely ignored in this book, despite its obvious importance to a community which has succeeded in halving its fertility in forty years.

It has been necessary to examine rather closely the basis for the poverty line of 43s. 6d. per week (53s. including average rent) in order to obtain some conception of the environment which must inevitably accompany such a standard. Rowntree fully recognizes the "fodder basis" of life at his minimum level, but the measuring rod used to gauge different levels of living needs very careful working out, and it would have

	s.	d.
*Unemployment and Health Insurance ...	1	7
Contribution to sick and burial clubs	1	0
Trade Union subscription		6
Travelling to and from work	1	0
Such necessaries as stamps, writing-paper, etc., for the family		6
A daily newspaper		7
Wireless		6
All else: beer, tobacco, presents, holidays, books, travelling, etc.	3	4
	9	0

been preferable to use a somewhat less stringent standard and one more in keeping with modern nutritional knowledge. It is really time we began to think and act in terms of the *average* price of *optimum* diets and not of the *minimum* price of *minimum* diets. To go on repeating research work directed to finding out the minimum expenditure on which life can be kept going must, both consciously and subconsciously, be inhibitive of progressive thought.

Even on this unduly low standard, however, Rowntree found that in 1936 (a relatively prosperous year) no less than 31·1 per cent of York's working-class population, including 43 per cent of working-class children, were living at or below the poverty line thus defined. Rowntree believes that roughly another 9 per cent were not in fact enjoying the " necessaries of a healthy life " because their income, though sufficient, was not spent according to his theoretical minima. The York survey's findings may be summarized as follows :

Class	Available income in terms of a married couple with three children	Percentage of working-class population
E	63s. 6d. and over	36·1
D	53s. 6d. to 63s. 5d.	13·9
C	43s. 6d. to 53s. 5d.	18·9
B	33s. 6d. to 43s. 5d.	16·9
A	under 33s. 6d.	14·2

Below the minimum only 10·5 per cent of breadwinners were skilled, compared with 31 per cent in Classes C and D and 49 per cent in Class E. The average family below the minimum, although not the largest, contained most dependent children (1·13 in a family of 3·37 persons) and the smallest number of supplementary earners (0·57) ; whereas the average family in Class E, although the largest (3·60 persons) contained the fewest dependent children (0·63) and most supplementary earners (1·10). Classes A and B together comprised 17,185 persons, of whom 5,677 (33 per cent) were in families whose average income fell short of the minimum by at least 3s. per head. The deficiency was 5s. or more per head for no less than 8 per cent—more than one person in twelve—whose income was *at most* equivalent to 18s. 6d. for a family of five, after paying rent.

The main cause of poverty in Class A was unemployment (42 per cent), inadequacy of wages of breadwinners in regular work (20·5 per cent) and old age (12·8 per cent) ; but in Class B 43·2 per cent of poverty was due to inadequate wages, 17·3 per cent to unemployment and 16·2 per cent to old age. Rowntree does not tell us, however, what proportion of working-class children—or, for that matter, of all children—were in poverty through unemployment. One suspects that, proportionately, children suffer from unemployment to a greater extent than adults, a suspicion which is borne out by examination of Unemployment Benefit and Allowances statistics. Of all persons below the minimum no less than 32·8 per cent were there because of inadequate wages, and another 9·5 per cent, persons in casual employment or working on their own account, because of insufficient earnings ; 28·6 per cent were below the minimum through unemployment. Thus largely *economic* causes were responsible for nearly three-quarters of all poverty. Old age was the most important " natural " cause (14·7 per cent), followed by widowhood (7·8 per cent) and illness (4·1 per cent). Notwithstanding the development of social services, Mr. Rowntree shows that if a man was unemployed his chances of being in poverty were nearly nine to one. Half of all unemployed heads of families were in fact in Class A. For a man in regular wage-work the chances were nearly nine to one against. In sickness the chances of life below the minimum were nearly two to one ; in old age they were even. In consequence 86·4 per cent of the unemployed and their families were living below the minimum. Among other groups the percentages were 63 for the sick, 44·4 for the aged, 40·7 for the widows and 55·8 for casual workers and those working on their own account. Even among regular wage-earners 15·8 per cent—just over one person in six—were below the poverty line.

The contribution made by public social

services to the income of each poverty group varied considerably. The unemployed derived four-fifths of their income from social services, the aged derived two-thirds, the sick 56·9 per cent and the widows 50·7 per cent. Social services contributed 38·2 per cent of the total income of all below the minimum (54·2 per cent in Class A and 28·8 per cent in Class B).

It has been repeatedly shown by advocates of family allowances that children are a cause of poverty. It is difficult to analyse this factor in great detail as, unfortunately, nowhere in the book are there adequate statistics relating to the age, sex and occupational structure of the families in the different classes. There is some material, but much of it has to be collected together by the reader. It is to be regretted that such a rare opportunity of obtaining a complete demographic picture of York was not taken. However, Rowntree states that among adult male wage-workers earning less than 53s. a week 36·9 per cent were found to have three or more children, compared with only 17·5 per cent of those earning more than 53s. and 11·5 per cent of those earning 70s. or more. These differences are said to be mainly due to the greater fertility of the poorer fathers. But children were also a cause of poverty. Families with four or more children contained 23·6 per cent of all working-class children in York; but 35·4 per cent of all children below the minimum, and 48·6 per cent of all children in Class A, were in such families. The most revealing material in Mr. Rowntree's survey is contained in the chapter on "Three Periods of Economic Stress." While 31·1 per cent of the total working-class population were living below the minimum, the proportions in poverty in different working-class age groups varied greatly:

Age Group	Per cent below minimum	Age Group	Per cent below minimum
Under 1	52·5	25 to 44	28·8
1 to 4	49·7	45 to 64	20·7
5 to 14	39·1	65 and over	47·5
15 to 24	23·7		

These figures show that half of York's workers were being born into poverty or were ending their lives below the minimum, while over one-quarter were living below the poverty line in middle life, the period when they were bearing and rearing their children. Although half of the children below the minimum had fathers in regular employment, Mr. Rowntree shows that 96 per cent of them would remain below the minimum for at least three years, 89·1 per cent for at least five years, 66·1 per cent for at least nine years, and no less than 49 per cent for at least thirteen years—the whole of their childhood. "There is not one of these children," writes Mr. Rowntree, "whose physique will not be permanently injured through the privation they have to undergo during the most critical years of life. . . . But the injury done to the health of these children is not confined to the privations from which they suffer during childhood, for the fact that a child is born into a family living below the minimum means that the mother was in poverty and her health consequently enfeebled, while bearing it, and so the child not only suffers after, but also before it is born."

This abbreviated summary of the main findings of the second survey of York shows that in many respects the standard of living of millions of people falls short of even a stringent poverty line, for there is no reason to believe that what is true of York is not also true of the majority of our urban centres. And if life at this level is what we conceive it to be, then the compelling forces of environment must inexorably weaken and impair the level of "wholeness" attainable by present and future generations. "Slow rises worth by poverty distressed" is just as true to-day as it was when written by Dr. Johnson. And if we re-calculate Rowntree's basic figure of 43s. 6d. and adopt a more generous standard of 62s. 10d. weekly, we find that the amount of poverty is thereby doubled. In other words 64 per cent of the working-class population would be below this standard.

From this sombre picture we can extract some little comfort by comparing it with the picture presented by the first York survey in 1899. Then 15·46 per cent of the working-class population were living in what Rowntree

called "primary poverty" *—a standard much below that we have described—whilst in 1936 the percentage had fallen to 6·8. "The economic condition of the workers is better by 30 per cent than in 1899, though working hours are shorter. Housing is immeasurably better, health is better, education is better. Cheap means of transport, the provision of public libraries and cheap books, the wireless, the cinema and other places of entertainment, have placed within the reach of everyone forms of recreation unknown, and some of them unthought of, forty years ago."

The causative forces of poverty were very different in 1936 than in 1899. The factor of low wages accounted for 52 per cent of "primary poverty" in 1899 (the main cause) against 9·2 per cent in 1936. Significantly, "largeness of family" as a cause has fallen from 22·2 per cent to 8 per cent, whilst old age and illness have risen in importance from 5·1 per cent to 23·5 per cent. These changes mirror the altered age structure of the community. The main cause of destitution in 1936 was the unemployment of the chief breadwinner (44·5 per cent), a factor which in 1899 accounted for only 2·3 per cent of "primary poverty."

Alongside these changes in economic conditions we find an all-round improvement in the heights and weights of working-class schoolchildren; a reduction in mortality rates and a dramatic decline in infant mortality from 161 to 55 per 1,000 births. This progress in improving environment is gratifying but it has taken us forty years and, as Rowntree points out, the poorest section of the working class has only now achieved a general death rate comparable to that of the highest working-class group in 1899. Moreover, whilst there has occurred a great reduction in the infant death rate for all classes we find that the rate among the poorest workers exceeded that of the best-off by 43 per cent in 1899 and by 88 per cent in 1936. Thus, it is true to say that the poorest group is *relatively* worse off to-day than forty years ago. The growth in the social services has contributed to the reduction in absolute mortality, for whereas at the beginning of the century the average contribution from social services towards the welfare of a York worker's family was 4¼d. per week (at 1936 prices), by 1936 it averaged 6s. 6d. per week; but it has apparently left untouched the gap between the different social groups.

Turning aside from economic factors we find that since 1899 there has been a striking decline in what may be termed spiritual interests. Church attendance in particular has fallen greatly. *Passive* leisure pursuits have grown enormously; but whilst drinking has steadily declined, betting and gambling have grown enormously. For example, during the football season York was sending 18,000 to 20,000 letters a week to pool promoters. One naturally asks why, but nowhere in his book does Rowntree attempt a diagnosis of these changes in leisure activities. Nor is there any attempt to study the relation between financial and educational opportunity (a survey which would have been well worth while); and the treatment of the social and economic effects of increasing age and declining fertility is extremely scanty. The facts are stated—with occasional errors—and in the main attractively presented, but apart from showing the economic effects of instituting family allowances* and of imposing statutory minimum wages, Rowntree deliberately refrains from discussing remedies, and makes no endeavour to throw light on the underlying causes of the changes in social habits and fertility patterns.† Yet these forty years have witnessed a biological revolution; the flight from parenthood has set in and a community which in 1899 was more than replacing its

* Here again something has gone wrong with Rowntree's statistics. On p. 102 he states that the cost of the 1899 diet for a family of five is at 1936 prices, 19s. 5d. per week, but on p. 83 of *Human Needs of Labour* the cost is given as 18s. 5d.

* 72·4 per cent of all persons in poverty on the standard we have described would be raised above this standard if an allowance of 5s. per week were paid in respect of each dependent child. This, however, would still leave a considerable number of persons in poverty and the number would greatly increase if the poverty line were raised to a level consistent with modern nutritional requirements.

†This question of differential fertility is discussed in the Notes of the Quarter for the Oct. 1941 issue of the REVIEW, Vol. 33, No. 3.

numbers is now failing by at least 25 per cent to effect replacement. Another forty years of the same trend will mean that there will be only an elderly York to survey. But this task will have to be left to others. Seebohm Rowntree, by his social studies and by the valuable material he has given us, deserves well of all reviewers, and in a book of over 500 pages it is perhaps a little unfair to grumble if everything has not been said that every reviewer could wish for.

RACIAL MIXTURE IN GREAT BRITAIN: SOME ANTHROPOLOGICAL CHARACTERISTICS OF THE ANGLO-NEGROID CROSS

A Preliminary Report

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WITH the exception of a large number of family studies secured by Miss R. M. Fleming,* little anthropological attention has so far been given to the question of racial crossing in this country, although the presence of some fairly extensive hybrid communities in most of our sea-port cities affords an excellent opportunity for anthropometric investigation, particularly in respect to the Anglo-Negroid cross.† The present paper, comprising a brief statistical analysis of the measurements of some ninety Anglo-Negroid or "Coloured" children, together with a smaller "White" sample of forty drawn from the same environment, represents what it is hoped may be merely a prelude to a wider and statistically more adequate survey of the subject, especially as far as the adult element is concerned. The present data, including those of a small number of adults with one F1 adult exception, were gained entirely from a community in Cardiff, where all the subjects were born. In the course of the enquiry the opportunity was taken of examining a further sample of some eighty subjects mainly of Anglo-Arab and Anglo-Mediterranean parentage. These, however, have been omitted from the present discussion for considerations of space. The Anglo-Negroid adult sample is as yet too small for statistical treatment, and has similarly been omitted, although a few particulars as to its characters are given below.*

Briefly stated, the aspects of racial crossing it is intended to cover comprise such questions as the segregation of both quantitative and qualitative physical characters in the hybrid population, the comparative variability of the respective groups, and comparative differences in growth and sex differences. In the light of these considerations it was decided to employ as wide an assortment of characters as was practicable, and having regard to the specific racial stocks involved, i.e. Negroid and Caucasoid

* R. M. Fleming. "Physical Heredity in Human Hybrids." *Annals of Eugenics*. Vol. IX, Part 1, pp. 55-81. 1939.

† K. L. Little. "The Study of Racial Mixture in the British Commonwealth." EUGENICS REVIEW, Vol. 32. Jan. 1941.

* It comprises four males and four females. Five of these are first crosses, and two may be listed as NNW and one as NWW (see later paragraph). Their cephalic and nasal indices work out as follows:

♂		♀	
C.I.	74·1	C.I.	75·2
N.I.	65·6	N.I.	81·8